

## BETTER BUILDINGS WATER SAVINGS NETWORK

## What is the Better Buildings Water Savings Network?

Through the Better Buildings Water Savings Network, DOE brings organizations together to discuss and demonstrate successful approaches to conserving water in buildings, plants and multifamily housing. All facility owners and managers are invited to build on the progress already made by Better Buildings Challenge partners who have set water intensity goals and reduced their water use by more than 10 billion gallons since 2015.

Through the Better Buildings Initiative, hundreds of leading organizations have prioritized greater energy efficiency; for many of these organizations the nexus between energy and water is profound. In addition to lowering operating costs, increasing reliability, and improving water quality, saving water also saves the energy required to transport and treat it.

Prioritizing water efficiency is a necessary response to the risks of climate change, particularly in water stressed regions. In 2020, on average, 28% of the U.S. population experienced conditions ranging from abnormally dry to extreme drought. This increased to 39% in the second half of the year, and drought conditions continued to intensify into 2021.<sup>1</sup>

## Why Should Organizations Join?

Water security is a growing concern, particularly in water-stressed regions of the country. Leading organizations, cities, and states have already responded by establishing water management strategies and reducing water use across their buildings and operations. To support these efforts, the Better Buildings Water Savings Network gives partners the opportunity to:

- Receive technical guidance from DOE and supporting organizations on issues such as data tracking and water management best practices.
- ▶ Be part of a network of peers working to address similar issues and share water-saving solutions.
- ➤ Set a water goal for all or a portion of their portfolios (e.g., in water-stressed regions) in partnership with DOE, track progress over time; DOE will profile successful and innovative efforts.

Together, network partners have the opportunity to address key topics and barriers identified by Better Buildings and Better Plants partners, including:

- ▶ Tracking data and validating results.
- Leveraging new technologies.
- ▶ Implementing best practices for changing behaviors.
- Strengthening the case for investing in water efficiency through its impact on related priorities such as energy reduction, resilience, equity, and workforce development.

## What Do Organizations Commit to?

Organizations can join by committing to engage in one or more water-savings activity each year. Activities may include one of the following, or another activity set in coordination with DOE:

- ▶ Publish a water savings case study on the Better Buildings Solution Center.
- ► Track and report water savings progress for all or a portion of their U.S. portfolio of buildings or plants.
- ► Share best practices and lessons learned on a webinar or another peer exchange format.
- ▶ Document the ways water efficiency impacts other priority areas such as energy reduction, resilience, equity, and workforce development.

DOE will recognize partner successes and innovative approaches on the Better Buildings Solution Center, in the annual Better Buildings Progress Report, and during the annual Better Buildings, Better Plants Summit.

## **How Can My Organization Join?**

To join, existing Better Buildings partners can email their program contact(s), indicating which activity they are interested in pursuing. Other organizations can email <a href="mailto:betterbuildings@ee.doe.gov">betterbuildings@ee.doe.gov</a> with details about their portfolio of buildings or plants, also indicating which activity they plan to pursue through the Water Savings Network.

<sup>1</sup> Source: U.S. Drought Monitor, National Drought Mitigation Center and University of Nebraska-Lincoln, 2020 cumulative population percent area data. Statistics by Threshold | U.S. Drought Monitor (unl.edu)



# Organizations that are already making progress towards a portfolio-wide energy savings goal with DOE may also set a portfolio-wide water goal. Here are the details of how that will work:

#### Portfolio Commitment and Goal

Generally, the portfolio of properties covered under a partner's water goal should match what is covered under its energy goal. Partners should discuss any discrepancies with their Better Buildings Challenge contact. Data for all water sources should be provided. This includes municipally supplied potable water, municipally supplied reclaimed water, and freshwater sources (onsite well water, lakes, and streams). Partners should provide data for indoor and outdoor uses.

Partners are encouraged to set a water savings goal, in coordination with their Better Buildings contact, that demonstrates their leadership in this space. Goals should ideally be based on water use intensity, but absolute goals may be acceptable under certain circumstances. Partners should select one of the three most recent calendar years prior to committing to a water goal as the baseline year. If a partner prefers to use the same baseline year for its water goal as its energy goal, it is acceptable to select a baseline year prior to the three most recent calendar years. Partners should discuss the specifics of baseline selection and water savings goals with their Better Buildings contact.

## **How Will Water Efficiency Be Tracked?**

Water use metrics will be expressed in terms of water use intensity, where feasible. In some cases, it may be acceptable to track absolute water use instead of water use intensity. This may be appropriate if a partner is focused on reductions in outdoor water use, or if a partner previously had a goal based on absolute savings. More information on water data tracking is available in the Better Buildings Challenge Data Tracking Manual.

## **Commercial, Public Sector, and Multifamily Partners**

For most properties, water use intensity will be measured in terms of water use per square foot (gal/ft $^2$ ). Partners who would rather use other metrics to track water use intensity should discuss options with their Better Buildings Challenge contact.

The use of ENERGY STAR® Portfolio Manager® for water use tracking is strongly encouraged. Portfolio Manager® enables partners to track both energy and water consumption within the same tool and easily share data with DOE. Partners who are not currently using Portfolio Manager® may submit water data using the Better Buildings Challenge Data Collection Template, a Microsoft Excel file, which is available on request.

## **University of Nebraska Medical Center (UNMC)**

UNMC surpassed its water goal after achieving 23% water savings across a portfolio of nearly 7 million square feet. UNMC established an employee engagement program, improved cooling tower efficiency, and replaced non-recirculating cooling systems on freezers, MRI machines, and electron microscopes. UNMC has also set ambitious 2030 goals to achieve net-zero emissions, net-zero waste, and reduce water use by 120 million gallons to achieve net-zero water.



#### **Industrial Partners**

Water intensity metrics can vary by organization or even for different plants within an organization. Water intensity metrics may be expressed in terms of use per unit of output, use per employee hour, use per square foot, etc. In most cases, the normalization metric for water should be the same as the normalization metric used for energy. However, there may be instances where a different metric may better represent water use. Partners will report water data using a customized version of the Better Buildings, Better Plants annual reporting form.

